OPERATING INSTRUCTIONS

profi-twin

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WARNING!

The Diacom profi-twin is not suitable for use in hazardous areas where explosive atmospheres may arise!

WARNING!

For your own safety when using the profi-twin, always wear rubber-soled safety shoes, ear protectors, a face mask and gloves.

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Foreword

This manual has been written for use by all persons who are involved in commissioning, operating and maintaining the Diacom profi-twin.
All those involved in installing, commissioning, operating, maintaining and repairing the equipment must:

- Possess the required qualifications and level of expertise for the tasks they perform.
- Have read this user manual.
- Comply with all the safety instructions that are indicated.
- If applicable, must have access to adequate, dimensionally correct and good quality tools.

Store this manual in a safe place and pass it on with the machine if the profi-twin is sold to a new owner.

The following symbols and warnings are used in this manual:

This symbol is used to indicate safety instructions throughout the manual. These instructions are crucially important: they must be read carefully and observed!

This symbol indicates instructions, tips and information for optimum use of the machine.

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Introduction

Every possible effort has been made to ensure that the information in this manual is up to date at the time of issue. However, as the equipment is subject to continuous improvement, Diacom B.V. reserves the right to alter or add to the content without any obligation and without notice.

This manual is included in the scope of supply of each machine in order to familiarise the operator with correct use of the machine and with the maintenance and lubrication instructions, and, furthermore, to alert the operator to possible hazards in order to ensure that the operator is fully informed and capable of achieving optimum results. We therefore request you to read these instructions attentively before operating the machine. Please do not hesitate to contact Diacom B.V. if anything in this manual requires further explanation. We recommend that you always keep this manual to hand for reference purposes.

This profi-twin has been designed and manufactured by Diacom B.V. in Hoofddorp. Diacom B.V. reserves the right to make changes to the machine's engineering, design and instructions, or improve or correct faults at all times, without any obligation and without notice.

This user manual, the type plate and the stickers attached to the profi-twin contain important information about the profi-twin and as such are an integral part of the scope of supply.

If damaged or lost, the above items need to be reapplied or replaced. All parts are available from Diacom B.V.

1 Scope of supply

The packaging delivered to you should contain the following parts:

- Cutting head support bar (without cutting heads)
  - Hydraulic motor
  - Hydraulic valve
- Metal adapter
- Two profi maxi stands
- 18 mm open-ended spanner
- 24 mm open-ended spanner
- 8mm Allen key

Option:

- hydraulic unit

2 General description

The profi-twin consists of the following components:

Profi maxi stand

Metal adapter

Adjustable cutting head support bar

Hydraulic motor

Hydraulic valve

Water connector

Connections for a hydraulic unit

The profi-twin boring system is assembled from 2 standard profi-maxi boring stands and an adjustable, removable connection bar. The manual drives of each of the guide arrangements are attached to each other by a metal adapter. After removing the bar and the adapter, you are left with 2 profi-maxi borings stands.

The profi-twin is a cutting system for cutting holes up to a maximum diameter of 1500mm. A 400cc hydraulic motor at a maximum pressure of 100 bars drives the cutting head. The power must be supplied by a hydraulic unit, which is not included in the scope of supply. The speed of rotation is controlled by the flow speed of the hydraulic unit.

To prevent overheating, the cutting head can be cooled with water. The support bar features a quick release attachment with a tap for this.

The cutting head is attached to a 6-hole flange with a special trapezium engagement system of 60x8.

Always check the condition the diamond-tipped cutting head before switching the tool on. The cutting head may not be used if cracks, dents or other signs of damage are visible.

3 Intended use

The Diacom profi-twin is a manually controlled, hydraulic cutting system for cutting holes up to 1500mm in diameter in concrete, asphalt and stone.

The profi-twin:

- May only be used in combination with diamond-tipped cutting heads up to a maximum diameter of 1500mm for cutting holes in concrete, asphalt and stony materials.
- May only be used by operators who have been specifically trained in its use. When using the tool, operators must always be able to concentrate fully on the work in hand.
- May only be used in combination with a hydraulic unit, set at no more than 100 bars.
- May only be used if both stands are firmly anchored to the ground using impact anchors.
- May **not** be used for cutting holes in an upward direction.

WARNING
Any use other than that described above:
- **may give rise to life-threatening situations**
- **is classed as “improper use” and releases Diacom from any and all liability!**

4 Technical Specifications

The profi-twin supplied to you complies with the following specifications:

Weight……100kg
Height……1000mm
Total width…….....adjustable (depends on the cutting head diameter)
Minimum width……...1780mm
Maximum width…….……..2020mm
Maximum stroke……...600mm
Maximum hole diameter……..1500mm
Angle adjustment.....……<45°
Cutting head drive...……..Spindle L + R gear ratio 1:3
Wheel set……Yes
Spirit level…….....Yes
Cutting head attachment……6-hole flange (special trapezium engagement arrangement 50x8)
Standard hydraulic Motor……400cc at 40 litres/minute = 100 rpm
400cc at 35 litres/minute = 87 rpm
400cc at 3o litres/minute = 75 rpm
Maximum pressure……100 bars

5 Safety

Read all safety warnings and safety instructions!

Failure to comply with warnings and instructions may result in serious injury.

WARNING
Nearly all accidents are caused by:
- **Loss of concentration,**
- **Inattentiveness,**
- **Negligence**
- **Misjudgements!**

Work calmly and in a concentrated fashion

You have been warned

Note!
You must comply under all circumstances with the safety instructions in the user manual and local regulations!

WARNING
There is a direct danger of bodily harm and damage to the machine and to the environment if operated by inexperienced and untrained persons.

Keep bystanders at a safe distance

5.1 Safety in the workplace

a) Keep your workplace clean and well lit. A messy or poorly lit workplace may lead to accidents. If necessary, cordon off the workplace using hazard marker ribbon.

b) Keep children and other people at a safe distance when using the tool. If you are distracted in any way, you may lose control of the tool.

5.2 Hydraulic safety

a) Prevent damage to the hydraulic hose
Avoid sharp bends and kinks when laying out the hydraulic hoses. Bends or kinks in a hose may cause significant counter-pressure.
Sharp bends and kinks will damage the hose internally and cause premature rupturing of the hose.

b) Do not allow heavy objects to fall on the hose.
A heavy impact may damage the hose's internal wire reinforcement.
When a damaged hose is subjected to pressure, it may rupture.

c) Do not lift the hydraulic equipment by the hoses or couplings.
Use the lifting handles that have been provided.

d) Keep the hydraulic equipment away from fire and heat sources. Excessive heat will soften the gaskets and seals, causing fluid leaks.
Heat also softens the materials used for the hoses and gaskets. To ensure optimum operation, do not expose the equipment to temperatures above 65 °C. Protect all hydraulic equipment against weld spatter.

5.3 Safety of persons

a) Stay alert, pay close attention to what you are doing and use the tool intelligently. Do not use the tool when you are tired or under the influence of drugs, alcohol or medication. One moment of inattention when using the tool can result in serious injury.

b) Wear personal safety gear. Always wear safety glasses. Depending on the type and use of the tool, wearing personal safety gear such as a dust mask, anti-slip work shoes, a safety helmet or ear protectors reduces the risk of personal injury.

c) Remove adjustment tools or adjustable spanners before switching on the tool. An adjustment tool or spanner attached to a moving part of the power tool may cause injury.

d) Avoid an unbalanced stance. Make sure that you stand firmly and maintain a balanced stance at all times. This will help you keep better control of the tool in unexpected situations.

e) Wear suitable clothing. Do not wear any loose fitting clothing or jewellery. Keep your hair, clothing and gloves out of the way of moving parts. Loose fitting clothing, long hair and jewellery may get caught up in moving parts.

5.4 Specific safety instructions

WARNING

Only use a unit that has been set at the right pressure and flow speed. Incorrect settings may lead to dangerous situations!

WARNING

Always wear the mandatory personal safety gear as specified by national and local legislation or regulations and/or in accordance with building site regulations, as a minimum;

- **Ear protectors**
- **Gloves**
- **Safety shoes**
- **A face mask**

WARNING

Always uncouple the hydraulic hoses first before carrying out checks, changing over tools, performing maintenance or making repairs!

WARNING

Hydraulic fluid that escapes under pressure is often almost invisible and can be powerful enough to penetrate the skin. This can lead to an infection. To avoid this, wear special gloves for working on hydraulic equipment when carrying out repairs.

6 Storage

Remove dirt, grease, etc. from the outside of the profi-twin. Wash the complete machine, for example with a high-pressure cleaner. Spray the rack and the upright and slider strips with Teflon spray, this prevents the build-up of caked-on dirt.

Store the profi-twin in a dry, covered area. Avoid leaving the machine out in the wind and rain.

Check the machine for technical faults. Order any parts that are required in good time so that the machine can be returned to good working order before being used again.

If necessary, the support beam can be removed from the profi-maxi stands to allow storage of the profi-twin in a confined space.

7 Transportation

Make sure that the profi-twin cannot suffer damage during transportation.
Always lay the profi-twin down during transportation so that it cannot topple over and, if there is a risk of the machine sliding, tie the profi-twin down securely.
During transportation the machine must lie stably and be kept well away from other products to avoid contact damage.

During transportation, the support beam may be removed from the profi-maxi stands in order to reduce the size of the load.

8 Assembling the Profi Twin

Proceed as follows to attach the support bar to the profi maxi stands.

1. Attach the plates for the support bar to the profi maxi stands
2. Extend both stands until the upper stop is reached
3. Now attach the support beam and adapter to the machines
4. The profi-Twin is now ready for use.

Perform this procedure in reverse in order to disassemble the machine.

9 Operation

To operate the machine correctly, follow the procedure described below.

1. Check whether the settings of the hydraulic unit are the same as those shown on the type plate.

2. Check all the connection hoses for signs of damage. If you find any damage, repair it first!

3. Drill a hole in the ground in the position where the footplates of the profi-twin are to be installed and knock an impact anchor into the floor.

4. Screw the threaded stud for the quick release system into the impact anchor.

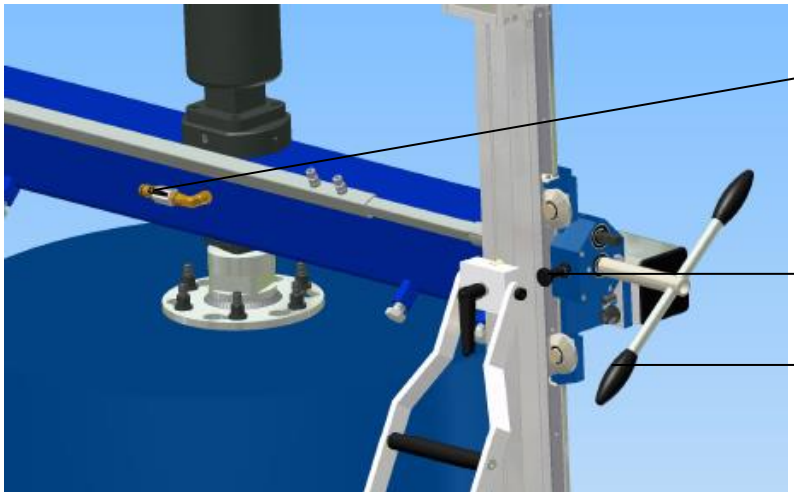
5. Adjust the support beam and adapter to the right width for the intended hole size and position the footplates over the threaded studs.

6. Lower the clamping plates over the threaded stud and secure by screwing down the clamping nut.

7. Adjust the foot plates until they are level using the adjustment bolts in the foot plates.

8. Check that the valve is shut and connect the hydraulic unit.

9. Connect the water hose to the support bar and open the tap slightly.



10. Open the valve and set the fluid flow rate so that the cutting head rotates at the right speed.

For a 400cc pump and pressure of 100 bars, the following speeds apply:

40 litres/minute = 100 rpm
35 litres/minute = 87 rpm
30 litres/minute = 75 rpm

11. Release the locks on both stands and slowly turn the lever to lower the cutting head until it touches the ground.

12. Continue to turn the lever slowly until the desired depth is reached.

13. Shut the valve to stop cutting head movement and close the water tap.

14. Turn the lever in the opposite direction until the cutting head is above the hole again and engage the locks on both stands.

10 Maintenance and lubrication

In general, one can say that regular maintenance (checking, cleaning and lubricating) has a positive effect on the safety and service life of the equipment. Make sure that the lock engagement button always operates as it should; it should be replaced immediately if found to be faulty.

WARNING

Always uncouple the hydraulic hoses first before carrying out checks or making repairs!

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Always uncouple the hydraulic hoses first before carrying out checks or making repairs!

NB!

Other than daily and weekly maintenance, all other maintenance work must be performed by a specialist company authorised by Diacom B.V.

NB!

If you find any faults, repair them or replace the damaged parts first (or have others do so)!
PUT YOUR SAFETY FIRST

10.1 Each time before use

- Check the cables and hoses for signs of damage.
- Check the cutting head to ensure it is still in optimum condition, otherwise replace it.
- Visually inspect the entire machine. Look out for hydraulic fluid leaks in particular.

10.2 Each time after use

- Wash the entire machine down, making sure that no debris remains in or on the machine as it is difficult to remove when dry.

10.3 Weekly

- Clean and lubricate the gear rack and the adjustment bolts.
- Spray the upright and slider strips with Teflon spray, this prevents the build-up of caked-on dirt.
- Check that the slider housings are still properly adjusted to the upright and readjust if required.

11 Faults

The Diacom B.V. profi-twin is a simple machine made from high-quality components and, when operated in accordance with the instructions for use, can be expected to function reliably for a protracted period.

WARNING

In view of the fact that electricity and water-cooling are combined in the profi-twin, the risk to health when continuing to work if the machine is not in perfect working condition is both immediate and substantial!
This is inherent to the type and working principles of the machine.
YOU HAVE BEEN WARNED

NB!

Only have the hydraulic equipment repaired by a specialist workshop authorised by Diacom B.V. and only use original replacement parts. This guarantees the continued safety of the tool!

WARNING

Hydraulic fluid that escapes under pressure is often almost invisible and can be powerful enough to penetrate the skin. This can lead to an infection. To avoid this, wear special gloves for working on hydraulic equipment when carrying out repairs.

12 End of the tool's service life

When, after extensive use, the profi-twin reaches the end of its service life, proceed as follows to ensure that the equipment is disposed of properly:

NB!

You must always comply with current local requirements and guidelines that apply to safe working and environmentally friendly disposal!

Hydraulic equipment, accessories and packaging must be recycled and/or disposed of in an environmentally friendly manner.

13 Warranty

The profi-twin is guaranteed for a period of 3 months following the date of delivery.

The warranty covers faults in materials and workmanship, which, **SUBJECT TO DIACOM'S ASSESSMENT AND APPROVAL,** will be resolved at no charge. Transportation and travel costs will be paid by the customer.

The warranty is voided if:

- The machine has been overloaded.
- The machine has been put to uses other than the intended use.
- Maintenance has not been carried out correctly.
- The information in the manual has not been complied with.
- The machine has been used by unauthorized persons.
- The machine has been repaired using non-original parts.

The following parts are not covered by the warranty.
All parts of the profi-twin are covered by the warranty.

EU Declaration of conformity

ACCORDING TO ANNEX IIA OF THE MACHINERY DIRECTIVE

We, Diacom Trading B.V.,
Bijlmermeerstraat 72,
NL-2131 HH HOOFDDORP

DECLARE ON OUR OWN RESPONSIBILITY THAT THE PRODUCT:

Make: Diacom
Model: profi-twin

TO WHICH THIS DECLARATION RELATES, COMPLIES WITH THE REQUIREMENTS OF THE FOLLOWING DIRECTIVES:

Machinery Directive 98/37/EC and 2006/95/EC

AND ALSO COMPLIES WITH THE FOLLOWING STANDARDS AND/OR OTHER NORMATIVE DOCUMENTS:

NEN-EN 1050	Principles for risk assessment
NEN-EN 5509	User manuals - contents, structure, formulation

DRAWN UP IN:

Hoofddorp, date: 02-03-2010

DIACOM B.V.
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